

REMARKS

Claims 1-14 are pending in this application. Claim 1-3 and 6-12 are withdrawn from consideration. By this Amendment the specification is amended to correct a spelling error. No new matter is added.

In view of the following remarks, reconsideration and allowance are respectfully requested.

I. Rejection Under §112

Claims 4, 5, 13 and 14 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants respectfully traverse the rejection.

The Office Action argues that the claims are indefinite because in claim 4 the term "specific-wavelength-light" is vague and indefinite. Applicants disagree.

Along with claim 4, the specification makes clear (page 10, lines 7-12, reproduced below for convenience):

The specific-wavelength-light absorbing layer 39B, a layer provided separately from the near infrared rays absorbing layer, is made from a pressure-sensitive adhesive that contains a coloring agent for color tone correction (typically, an agent for absorbing the emission spectrum of Ne atom) and, if necessary, a coloring agent for color tone adjustment.

These coloring agents are defined in the specification (page 9, lines 10-17, reproduced below for convenience):

. . . a coloring agent for correcting the inherent emission spectrum of an inert gas (such as neon gas) characteristic of a PDP, that is, unwanted light with specific wavelengths, is called "a coloring agent for color tone correction (also referred to as a Ne light absorbing agent)"; and a coloring agent for adjusting the color tone of a displayed image to a favorite one is called "a coloring agent for color tone adjustment". Collectively, these coloring agents are also referred to simply as "coloring agents".

Thus, reading the claim in light of the specification, one of ordinary skill in the art would not find "specific-wavelength-light" to be indefinite because they would understand the "specific

wavelengths" are the wavelengths absorbed by the coloring agents. Moreover, claim 4 specifies the specific compounds that can be selected for the coloring agent for color tone correction and coloring agent for color tone adjustment. The "specific wavelengths" absorbed by these compounds are known in the art and described, in part, in the specification. See specification, page 20, line 1 to page 21, line 4.

Accordingly, claims 4, 5, 13 and 14 are not indefinite. Reconsideration and withdrawal of the rejection are respectfully requested.

II. Rejections Under §103

Claims 4-5 are rejected under 35 U.S.C. §103(a) over Yoshikawa in view of Ozawa. Applicants respectfully traverse the rejection.

Independent claim 4 recites (emphasis added):

An anti-reflection film for a plasma display, comprising:
a transparent substrate film,
an anti-reflection layer provided on one surface of the transparent substrate film, and
an unwanted light shielding layer provided on the other surface of the transparent substrate film, the unwanted light shielding layer comprising:
a near infrared rays absorbing layer consisting of a transparent resin and a near infrared rays absorbing agent that absorbs near infrared rays, contained in the transparent resin, and
a specific-wavelength-light absorbing layer laminated to the near infrared rays absorbing layer on the side opposite to the transparent substrate film and outside the near infrared rays absorbing layer, consisting of an adhesive, and a coloring agent for color tone correction that absorbs light with specific wavelengths originating from the emission spectrum of an insert gas of a plasma display and optionally a coloring agent for color tone adjustment, contained in the adhesive . . .

Claim 4 further specifies Markush groups of specific compounds for each of the coloring agent for color tone correction and coloring agent for color tone adjustment. The applied references fail to teach, suggest or establish and reason or rational to provide the claimed combination of features.

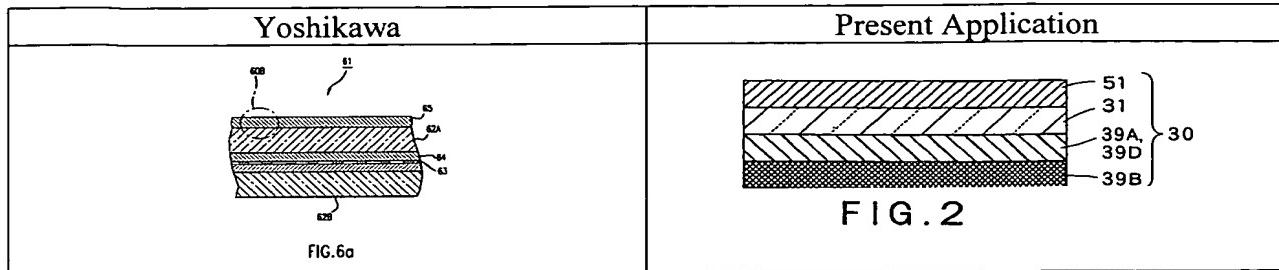
The Office Action admits Yoshikawa does not disclose a discrete transparent resin layer that consists of a near infrared absorbing agent and an adhesive layer consisting of a coloring agent for color tone correction. See Office Action, page 3. However, the Office Action asserts that Ozawa discloses a color filter with additional layers that can be provided in any order, and that it would have been obvious to thus incorporate a separate layer of a near infrared absorbing agent in a transparent resin between the substrate and layer of a coloring agent for color tone correction of Yoshikawa. See *id.* Applicants disagree.

A. The Applied References Do Not Disclose or Suggest a Separate Specific-Wavelength-Light Absorbing Layer

Yoshikawa and Ozawa fail to teach, suggest or establish any reason or rationale to separately provide (1) a near infrared ray absorbing layer and (2) a specific-wavelength-light absorbing layer.

Yoshikawa provides an anti-reflection film 65 for a plasma display that includes an adhesive layer 64. See Fig. 6a and col. 17, lines 12-27. However, the adhesive layer 64 of Yoshikawa contains both a near infrared rays absorbing agent and a coloring agent for color tone correction. Col. 18, lines 64-67 and col. 11, lines 19-24. As a result, layer 64 is a single layer, where the layer includes both a near infrared rays absorbing agent and a coloring agent for color tone correction.

In contrast, claim 4 specifically requires two separate layers: (1) a near infrared ray absorbing layer and (2) a specific-wavelength-light absorbing layer. The layers are laminated together but are not intermixed and combined together as a single layer. Compare, for example, Fig. 6a of Yoshikawa having a single adhesive layer 64, with Fig. 2 of the present application with separate specific-wavelength-light absorbing layer 39B and near infrared rays absorbing layer 39A:



See also, specification page 8, lines 7-19.

Thus, Yoshikawa does not separately disclose (1) a distinct specific-wavelength-light absorbing layer and (2) a near infrared rays absorbing layer, as claimed, but only discloses a single, mixed layer. Further, Yoshikawa lacks any reason or rationale for one of ordinary skill in the art to instead have provided the disclosed single layer in two separate layers as claimed. Yoshikawa does not indicate how such a separation of the materials from the single unitary adhesive layer could be accomplished while still providing a workable product. Nor does Yoshikawa provide any suggestion that such separate layers could or should be used for any reason. Thus, Yoshikawa would not have rendered obvious the claimed invention.

Ozawa fails to overcome these deficiencies.

The Office Action asserts that Ozawa discloses a color filter having separate layers that may be provided in any order and, thus, asserts that it would have been obvious to modify Yoshikawa with an additional infrared absorbing agent in a transparent resin sandwiched between the transparent substrate and an adhesive layer. See Office Action, pages 3-4.

Ozawa does not teach, suggest or establish a reason or rational for one skilled in the art to provide the single layer of Yoshikawa in separate layers as claimed. Ozawa teaches different layers for different purposes and provides no reason or rationale for one of ordinary

skill in the art to have increased the number of layers in Yoshikawa to arrive at the claimed invention with any reasonable expectation of success.

Thus, Yoshikawa and Ozawa, alone or combined, would not have rendered obvious the claimed invention. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. The Applied References Fail To Recognize
The Order Of The Layers Is Critical

Yoshikawa and Ozawa fail to teach, suggest or establish any reason or rationale to laminate the layers of an anti-reflection film in the manner claimed.

Applicants' invention requires that a specific-wavelength-light absorbing layer is laminated both (1) on the opposite side of the substrate than the unwanted light shielding layer and (2) outside of a near infrared rays absorbing layer that is also located on the opposite side of the substrate than the unwanted light shielding layer. Thus, the near infrared rays absorbing layer will always be between the unwanted light shielding layer and the substrate. The applied references fail to teach, suggest or establish a reason or rationale for one of ordinary skill in the art to provide an anti-reflection film with layers in this order.

The Office Action asserts that, based on Ozawa's disclosure of multiple layers, it would be obvious to modify Yasikawa to provide the claimed layer order. See Office Action, page 4. Applicants respectfully disagree.

As explained in the specification, the arrangement of the layers relative to one another is critical. See specification, page 22, lines 19-32 (reproduced below for convenience, emphasis added):

In the present invention, the coloring agent for color tone adjustment is incorporated, as needed, in addition to the near infrared rays absorbing agent (NIR absorbing agent) and/or the coloring agent for color tone correction (typically, a Ne light absorbing agent). It is essential that the step of incorporating the coloring agent for color tone adjustment be effected at the point close to the end of the whole production

process. In this step close to the end of the whole production process, it is possible to easily adjust the color tone of a displayed image according to customer's preference. Therefore, in the steps prior to the step of incorporating the coloring agent for color tone adjustment, it is possible to produce semi-finished products of one type in a large quantity according to one specification. The coloring agent for color tone adjustment that has been selected according to customer's preference is then incorporated in the semi-finished products in order to adjust the color tone of a displayed image. Thus, in the process of producing the anti-reflection film for plasma display, the decrease in productivity and the complication of process control can be minimized as a whole even when the step of adjusting color tone has to be effected in a small-quantity production of a variety of products. Consequently, reduction in cost can be attained.

The applied references fail to teach, suggest or establish any reason or rationale to order the layers in the critical fashion. Yoshikawa only teaches one layer with both a near infrared rays absorbing agent and a coloring agent for color tone correction. See col. 18, lines 64-67 and col. 11, lines 19-24. Thus, it provides no guidance on how to arrange layers containing infrared rays absorbing agents separately from layers containing coloring agents for color tone correction and/or color tone adjustment. Further, the Office Action admits that Ozawa teaches "layers may be provided in any arbitrary order." Office Action, page 3; Ozawa col. 15, lines 27-32. Thus, at best, Ozawa teaches away from claimed critical ordering of layers that provide the unexpected results described below. At worst, Ozawa's failure to teach any benefit of multiple layers and guidance that the ordering of layers is arbitrary would, in light of Yoshikawa, encourage one of ordinary skill in the art to combine the multiple layers into one layer in order to simplify manufacture of the PDP.

Therefore, taken separately or collectively, the applied references fail to recognize the criticality of the claimed arrangement of layers. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. The Claimed Invention Provides Unexpected Results

The claimed structure provides significant and unexpected results that further establish non-obviousness of the claimed invention over the applied references. In the claimed invention, a separate specific-wavelength-light absorbing layer is not part of, but rather is laminated to, the near infrared rays absorbing layer. As a result, these two separate but laminated layers can be provided independently in the process of forming an anti-reflection film for a plasma display.

According to the claimed invention, therefore, the near infrared rays absorbing layer absorbs near infrared rays, but does not have specific properties of transmittance or tone correction. As such, the physical properties of the near infrared rays absorbing layer can be fixed. Instead, if adjustment of the transmittance or color tone correction is required, such changes can be made simply by adjusting the properties of the specific-wavelength-light absorbing layer, without needing to also alter the properties of the near infrared rays absorbing layer. This allows such changes to be easily and safely made, by simply adjusting an outer layer of the structure. See, for example, specification, page 22, lines 19-32

The claimed invention thus allows and provides for easy and secure adjustment of the transmittance and color tone correction properties. This provides the benefit, for example, of allowing multiple different specific-wavelength-light absorbing layers to be prepared with a range of properties, and then the desired or suitable specific layer can be used for a specific application. See, for example, specification at page 6, lines 21-28.

In contrast, Yoshikawa does not provide for easy and secure adjustment of the transmittance and color tone correction properties. In Yoshikawa, adjustment of these properties necessarily affects the near infrared rays absorbing layer. Adjustment of the properties thus also requires adjustment of the near infrared rays absorbing layer. Yoshikawa does not teach or suggest, and provides no reason or rationale for, modifying its unitary

structure to instead provide two separate laminated layers, in the manner as claimed.

Likewise, Ozawa fails to cure the deficiencies of Yoshikawa.

As the Office Action admits, Ozawa teaches that "layers can be provided in any arbitrary order." Office Action, page 3; Ozawa col. 15, lines 27-32. Thus, Ozawa provides no guidance to one of ordinary skill in the art that laminating the specific-wavelength-light absorbing layer to the outside of the film provides for secure, easy and cost effective adjustment of the transmittance and color tone correction properties. At best, Ozawa guides one of ordinary skill away from the claimed invention by teaching that layers should be provided "preferably in the order described," and thereafter describing the near-IR absorbing layer first. See Ozawa, col 15, lines 31-49; see also, col. 15, lines 27-31 (listing near-IR absorbing layers first in a list of additional layers).

Therefore, taken separately or collectively, the applied references fail to teach or suggest the unexpected results of the claimed invention. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

D. The References Do Not Disclose or
Suggest The Claimed Coloring Compounds

Claim 4 also specifies specific compounds for each of the coloring agent for color tone correction and coloring agent for color tone adjustment. However, the applied references fail to teach, suggest or establish any reason or rationale to provide the anti-reflection film that includes the specifically identified compounds.

Yoshikawa is completely silent as to any specific compounds that might even correspond to the coloring agent for color tone correction and coloring agent for color tone adjustment. Yoshikawa only mentions coloring agents in one instance, and then only by generally stating that "[t]he EVA adhesive layer may further include, in small amounts, ultraviolet absorbing agent, infrared absorbing agent, antioxidant, paint processing aid, and/or

coloring agent." Col. 11, lines 19-22. While Ozawa is more directed to coloring agents, Ozawa in fact is specifically directed to a filter that requires the presence of a very particular dipyrazolylsquarylium dye. See Ozawa, Abstract.

Even if combined, Yoshikawa and Ozawa further fail to teach, suggest or establish any reason or rationale to provide an anti-reflection film that includes the specifically identified compounds. That is, the references do not disclose or render obvious that the anti-reflection film includes a specific coloring agent for color tone correction and the specific coloring agent for color tone adjustment (optional in claim 4 but required in claim 5)

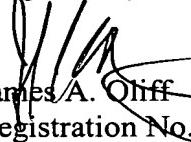
Thus, for this additional reason, Yoshikawa and Ozawa, alone or combined, would not have rendered obvious the claimed invention. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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Attachment:

Petition for Extension of Time

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